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IS "QUALITY" REALLY NEW?

by

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A RESEARCH REPORT SUBMITTED TO THE FACULTY
IN
FULFILLMENT OF THE CURRICULUM REQUIREMENT

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EXECUTIVE SUMMARY

TITLE: Is "Quality" Really New?

AUTHOR: Constance M. Whorton, Lieutenant Colonel, USAF

Mirroring the writing style of William C. Byham and Jeff Cox's book on "Zapp", a comparison is made between the antiquated environment of Quality Assurance and the new empowered culture of Quality Air Force (QAF). This evaluation analyzes four aspects of an organization - culture, personnel utilization, structure, and method. The assessment demonstrates the vast difference in the QAF management approach when contrasted to the traditional way we operated in the Air Force. QAF is a fundamental transformation!

BIOGRAPHICAL SKETCH

Lieutenant Colonel Constance M. Whorton (M.S.N., University of Maryland) has personally participated in the transition of the prior quality assurance (QA) program into the new continuous quality improvement approach in the military health care arena. She has held positions as a department and service QA Coordinator at regional and intermediate size medical facilities. While attending graduate school at the University of Maryland, Baltimore, Md., she wrote a research paper on medication errors, one of the most inclusive nursing literature reviews on the subject. She has also researched the literature on the self-fulfilling prophecy or expectancy theory, and has authored a paper on this subject. Lieutenant Colonel Whorton is a graduate of the Air War College, class of 1994.

CHAPTER I INTRODUCTION

The reverberation of student discussion emanated from the classroom and the hallway as the session on Quality Air Force (QAF) concluded at Air War College. Classmembers were saying that QAF will never work in this bureaucratic infrastructure or that QAF is just a new term for an old perspective. My mind started to dismantle both of these statements, searching for a framework to perform a system analysis. Robert S. McNamara would have compared alternatives, QAF and old management procedures. What are the differences? Secondly, there must be some elements of quality already in the system to make people think that it is a new term for an old perspective. And, why is there such a vehement reaction in individuals related to the implementation of this innovative process? I tried to frame this line of inquiry and came up with the following questions.

Is "Quality" really new? Have we, the Air Force, been doing quality all along? Or, are there fundamental differences, in thought and structure, between how we have traditionally operated and what the Quality Air Force is asking us to become?

In the profession of arms, interpreting the significance of current events can be accomplished by studying the past. This cognitive strategy can be utilized to answer the above questions pertaining to QAF. Contrasting the distinct characteristics of Dr. W. Edward Deming's process to prior management methods involves introducing a complete "behavior change" associated with institutional and individual approaches instead of initiating isolated tools or a cosmetic quick fix.

Starting the QAF movement in the Air Force has propagated a highly charged personal reply. The nature of this affective demeanor has its origin in the request for "behavior change". An alteration in expectation or behavior is dependent upon two variables: rigidity of personal interpretation and the strength of the disconforming evidence (17:429). Efforts toward gaining acceptance are usually directed at the later portion of this equation. In the fledgling beginning of implementing QAF, uncomplicated processes are identified for improvement and a group of employees are chartered to accomplish this endeavor (Process Action Team). The aim of this task is to improve quality, but more importantly to allow the organization to experience success. The resulting achievements show that quality really does work and therefore increase the strength of the disconforming evidence (29:6).

However, the most critical aspect of the above equation centers on the rigidity of personal interpretation. A new attitude in the American administrator appeared after the 1960s. Stephen R. Covey, a well known expert on leadership, would argue that this shift occurred after World War I (12:19). Regardless, the essence of this alteration in beliefs hits at the core of this pessimistic and resistive response to QAF. A unique concept emerged during this period, the desire for instant gratification by means of least effort. According to Covey, the first 150 years of management literature since 1776 stressed Character Ethic as the premise of success - things like integrity, humility, temperance, courage, justice, patience, loyalty, and industry. He points out that this segment of time was followed by an era of Personality Ethic. Success became a function of personality, of public image, skills and techniques (12:19). D. A. Benton writes in her book on "Lions Don't Need to Roar" that the way to move ahead is through

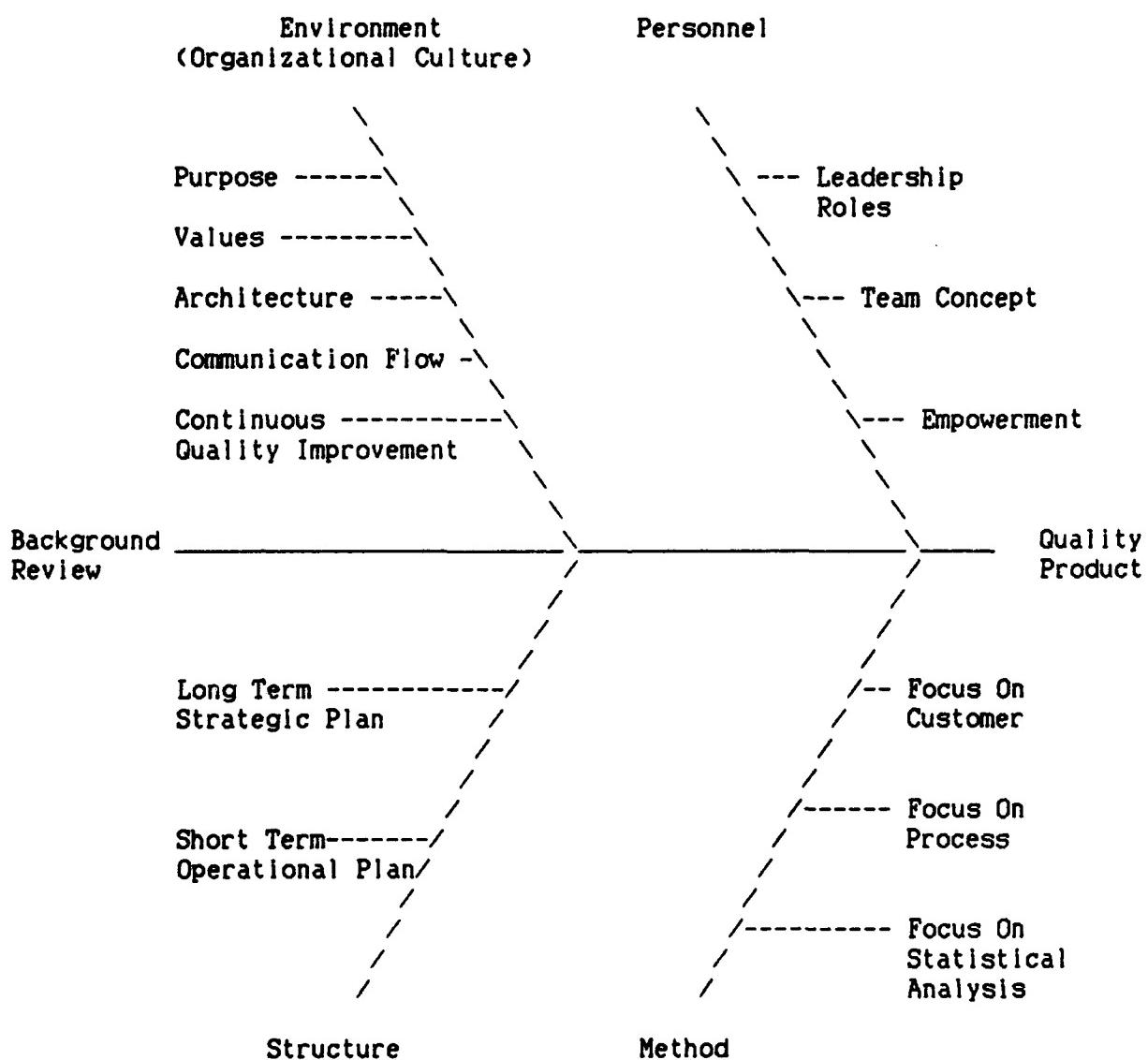
professional presence, making a favorable first impression, the best entrance, and giving the right touch (4:3). Maslow's aspects of self-actualization have been thrown to the wind; inner growth is not required when a flashy outward appearance will do.

Quality is a journey, not a destination (9:251). Incorporating the tenets of this culture and way of thinking may take as long as 10 years. Walking the talk of the process portion of the Ishikawa diagram is a tenacious and lengthy metamorphosis. This dimension of a slow, continuous evolution of quality improvement leading to the ability to make flexible and versatile adjustments for a quality product, conflicts with our current administrative paradigm of a quick means to a quick end. (9:251)

It is the author's hypothesis that previous management techniques were more readily adapted and failed to produce results because they did not require a behavior change in the individual's leadership style. Additionally, the above historical evaluation may shed some light on the nature of "our" rose colored lens and the amount of cognitive dissonance that is needed in order to permit embracement of the QAF banner. QAF is a fundamental transformation!

The following assessment will now focus on identifying the unique aspects of QAF, allowing the reader to discern why it is so powerful. The author's five years experience as a department Quality Assurance Coordinator (QAC) provides the conceptual reference to contrast the old Quality Assurance (QA) program with the new QAF endeavor. The Ishikawa cause-and-effect diagram will be employed as the appraisal schematic, looking at the environment (organizational culture), personnel (leadership roles and team

concept), structure (strategic planning and implementation) and method (focus on the customer, process and statistical analysis). Additionally, the variations between QA and QAF will be further accentuated by transporting the reader to two separate committee meetings, one conducted in the antiquated QA fashion and the other conducted in the revitalized QAF style. This mode of delivery will facilitate the actualization of abstract ideas by demonstrating their use in the action setting (8:3). Let's begin our journey with a background description. A road map depicting the route of instructional exploration is provided below.



CHAPTER II BACKGROUND REVIEW

QUALITY ASSURANCE PROGRAM

The USAF Medical Corps initiated the QA program in the 1970s. Each medical facility was allocated a staff position for a hospital QAC. Furthermore, each medical department or service appointed a QAC to work with this individual as an additional duty. Special hospital committees were formulated to review negative occurrences and judgements were rendered on whether standards of care were met or not met. Committee findings and recommendations were delineated in comprehensive written reports that were submitted to the appropriate MAJCOM for review and then to the Surgeon General's Office. The hospital's monthly QA committee minutes were also sent to the appropriate MAJCOM for approval, which generated an extensive return response of suggestions and recommendations. Moreover, each department QAC was responsible for identifying important aspects of care, monitoring these aspects of care, and submitting a monthly report of findings and actions to the hospital QAC. If a problem was discerned, the main emphasis was on a quick fix, with evidence of outcome improvement within a month. This program turned into a work intensive undertaking with minimal improvements in quality. It was a paperwork nightmare which consumed numerous manhours in a futile effort. The primacy of this program can be comprehended in the fact that one of the most important areas examined during each military and civilian inspection was the hospital and department QA programs. If these programs failed the scrutiny of the inspector, then the hospital or department was destined to receive a less than favorable evaluation grade. Frequently,

medical facility and department executives took non-allocated staff and dedicated them to this quality quest in order to build the track-record required to obtain the brass ring (2:26; 6:60).

As you can see, the QA program violated several of W. Edwards Deming's fourteen points: drive out fear; break down barriers between staff areas; remove barriers to pride of workmanship; adopt the new philosophy; cease dependence on mass inspection; create constancy of purpose for the improvement of product and service; institute leadership; and improve regularly and forever the system of production and service (27:34-36). The QA program created fear by highlighting negative occurrences rather than opportunities for improvement. Employees were blamed for mistakes. The center of gravity was the hospital QA office that orchestrated changes and actions through the department and middle managers. The impetus was on short-term gains. Evaluation was on steps in a procedure rather than on a process and the use of statistical measures. The prominent leadership style was authoritarian directive rather than participative. Lastly, there was no comprehensive strategic plan for the organization.

QUALITY AIR FORCE (QAF)

A champion of creative measures, the USAF Medical Corps was a trail blazer for the QAF cause. Acknowledging the deficiencies of the QA program, a novel management method known as Total Quality Management (TQM) was tested in 1988 at the USAF Medical Center Wright-Patterson, Wright-Patterson Air Force Base (AFB), Ohio (24:4). This revolutionary approach produced dynamic outcome improvements that were quickly recognized by the Air Force's top commanders

leading to an organization-wide implementation of TQM under the acronym of QAF. As further testament of the Air Force senior leadership's highest commitment to the institutionalization of this philosophy, the Air Force Quality Center, a foundation for the proliferation, consultation, distribution and coordination of quality practices, was established in August 1991 at Maxwell AFB in Alabama (25:1).

QAF is a holistic concept which creates an enlightened environment that draws upon employee excellence for a quality product and team growth (8:154). QAF is based on the principles of continuous quality improvement, participative leadership, teamwork, strategic planning and implementation, process focus, management by fact, matrices, benchmarking and the instillment of quality values. It is a total reversion in function and attitude that stresses the two faces of human interaction and systematic analysis. The human face is the requisite of trust and ethics, embodied in an obsession with the customer, empowerment, and leadership. The systematic or thing side is expressed in the quality improvement tools, reliance on data, and statistical process control (16:14). Now to expound upon this postulation, the individual bones of the Ishikawa fish-bone diagram will be studied. The first major section of this skeleton to be assessed is the Environment or Organizational Culture.

CHAPTER III ENVIRONMENT (ORGANIZATIONAL CULTURE)

What is Culture? Culture is the ideas, customs, skills, and arts of a given people which defines how they accomplish their everyday duties. One of the first tasks in understanding an organization's culture is determining the purpose of its existence. An organization's reason for being is delineated in its vision, mission, and goals. A vision is the pathway to the future. It defines in written language where the organization is going and the projected changes that are required to get to that destination. Management's most important contribution to the organization is creating the agency's vision and then empowering the staff to fulfill this aim (9:130). The mission describes the agency's major job responsibilities, the resources needed to accomplish these tasks, proposed achievements, and the medium in which it will be completed (25:II-1). Goals are broad statements which describe how the vision and mission will be obtained. Therefore, the essence or intrinsic nature of an organization is conveyed in its vision, mission, and goals.

The ideas of the people that work in an organization are ingrained in its philosophy and value system. Philosophy is a very complex notion that is a conglomeration of many parts. The mode of problem solving and communication is imbedded in the worth that is ascribed to each of the members of an organization. This aspect portrays where the decisions are made and the delegation characteristics of the agency. Also included in this mind-set is the organization's desired outcomes and the accomplishments that are rewarded and recognized. An organization's value system is encapsulated in its ideals, fundamental policies, and transactional manners. Ideals are core attributes

that we hold vital to our moral perspective. These core values are translated into broad phrases of expected conduct known as fundamental policies. Lastly, these policies are converted into our transactional style (25:II-3). The culminating outcome of these elements can be viewed by watching the actions of the individuals that comprise an institution. We are all reflective mirrors of our own beliefs. How we think comes out in how we act. This concept is often coined in the adage - "walking the talk".

Another clue that provides some insight about the customs of an organization is the architecture for information flow. The formal structure is depicted in the institution's organizational chart which displays the chain of command. Also included in this model is the informal structure. A current vogue technique is to flatten the organization's chain of command by deleting the middle management layer. There is some credence to this procedure, it places the action at the lowest level and also enhances flexibility (29: 207). However, another credible tactic is the formation of informal groups which can be made a permanent part of the architecture and may not be shown in the institution's organizational chart.

QUALITY ASSURANCE PROGRAM

QA was a program plastered into the organization's structure. The purpose of QA was to identify problems, the outlier or "bad apple", and document the measures implemented to resolve this deviation. This program was a stand alone system, isolated from the major aspects of the organization's future direction and goals for achievement. At the top of this pyramid was the QA office. The hospital QAC was in charge of this section and reported directly to the hospital commander. The next management tier consisted

of the medical department QACs that reported to their different department chiefs and coordinated their programs through the QA office. This arrangement encouraged compartmentalization, with minimal collateral communication or cooperation across department lines. The main focus was on the functions performed by the department rather than the internal or external customers. Each department developed indicators which evaluated job tasks that were accomplished in their distinct work centers. QA took on an adversarial feature when the standards for indicators were not met, leading to questions related to who was responsible and what should be done. The information flow that did occur between departments took on a finger pointing appearance. It was an explosive challenge. The ultimate purpose was to assign a problem to another department so that they were saddled with the evaluation, initiating corrective measures, and reporting results. This grenade tossing conduct did not promote an organizational culture that was conducive to collegial partnerships, team work, or continuous quality improvement.

To illustrate this organizational culture, let's go to a QA meeting that is being held by Lieutenant Colonel (Lt Col) Mode:

The meeting began at 1300 hours on the 15 June 1991. One of the major topics of discussion was the missing medicine and incorrect distribution of medications and dosages that were delivered by the pharmacy to the inpatient units (24:5). Lt Col Mode opens the floor to comments from all members of the QA Committee. The officer in charge (OIC) of the Medical Nursing Unit states, "This is just a repeated deficiency that hinders our ability to provide good nursing care. It's about time the

pharmacy straightens out this mess." This statement brings on a crescendo of accusations from all the other inpatient unit OICs, reiterating the same complaint. The bastille is being overrun, as Lt Col Mode is thinking about what should be stated or what action should be taken to stop this onslaught.

QUALITY AIR FORCE

There is a unique paradox that takes place in the QAF movement. When QAF is introduced into an organization, the initiating direction and commitment begins at the top administrative levels of the agency. However, the overall aim or end point of this task is to promote participation from the entire work force with change eventually being driven from the "bottom - up". During the conception of QAF the organization formulates a Quality Council consisting of the prominent executive stakeholders in the institution. The Quality Council constructs the vision, mission, and goals of the agency. Additionally, this forum identifies important processes and customers that lead to and are a recipient of a quality product. Another undertaking that is accomplished by this group is the establishment of a plan that outlines the QAF structure and training requirements. All objectives are cascaded downward through the organization. The training on QAF principles, quality tools, group dynamics, and empowerment are completed in a descending order from the executives, to the middle managers, to the employees. Furthermore, defining the vision, mission, goals, important processes, customers, matrices, and benchmarks also proceeds in a cascading fashion with each department and functional area stipulating these aspects for their separate work centers (1:10; 11:15; 18:245; 19:237; 21:211).

QAF is founded on the Air Force's core values: integrity, courage, competence, tenacity, service, and patriotism. These beliefs are translated into several broad principles. Executive management involvement and support are critical for the success of QAF. Empowerment must be enacted at the point of contact and improvement necessitates the participation and input from all levels of the work force. To correctly identify the nature or causes of a problem the process has to be objectively evaluated, thus siphoning out any inherent biases of the analyst. These principles become the basis for the expected behaviors of leaders. Individuals in a charge position need to promote an atmosphere that is based on trust, teamwork, and pride. An aspect of self confidence must be evident in these people, leading to an ability to delegate responsibility and authority, while still retaining accountability. Lastly, leaders must project and demonstrate that all members of an organization are stakeholders and that the aim of all employee endeavors is to continuously improve the quality of the product delivered to the internal and external customers (12:19; 18:245; 25:II).

The QAF information flow is dependent more on the informal architecture of the agency, rather than the institution's organizational chart. This is the key to making this approach work in a bureaucratic system. An organizational plan can be designed if the true intentions of QAF are always affirmed. Permanent working groups can be chartered to improve processes or systems that globally effect the individuals receiving a product. Following the path of designated customers as they proceed through an organization will discern the vital processes or systems that need to be improved. After building this outline, then quality circles that are specific to work centers

can be instituted. This arrangement encourages information flow across stovepipes, focuses on the process, and emphasizes the route that the customer travels.

To illustrate this organizational culture, let's go to a QAF meeting that is being held by Lt Col Zapp:

The meeting began at 1300 hours on the 15 June 1991. One of the major topics of discussion was the missing medicine and incorrect distribution of medications and dosages that were delivered by the pharmacy to the inpatient units (24:5). Lt Col Zapp opens the floor to comments from all members of the QAF Committee. The officer in charge (OIC) of the Medical Nursing Unit states, "This is an opportunity for improvement, as we all know variations in the process are causing the problem." All of the OICs agree with this statement. Lt Col Zapp thinks about how rewarding it is to work in an institution where Joseph Juran's 85/15 rule is understood: 85 percent of the organization's problems are due to the system, rather than to the workers involved in the process within the system (28:242).

Now lets proceed further on this learning adventure by highlighting other differences between QA and QAF. The second major section of the Ishikawa fish-bone diagram to be assessed is Personnel.

CHAPTER IV
PERSONNEL (LEADERSHIP ROLES, TEAM CONCEPT, AND EMPOWERMENT)

The manner in which personnel are treated and their capabilities realized is dependent on the value attributed to the worker and how this outlook is consummated. For a long time organizations confessed conviction to the Y theory of management or leadership. This approach assumes that all people have a natural drive for accomplishment (9:19). Nevertheless, one of the principal stumbling blocks to achieving this belief was the leadership roles the organization assigned to various employee levels, and the implementation model used by the organization. There are two dimensions to leadership, the unique style of the individual and the role established by the agency. An organization can define leadership as controlling or mentoring. In a controlling environment, the leader usually winds up telling the employee what to do and monitors this assignment to the point of completion. Power within the institution is retained by a few, with minimal employee involvement in decision making. In the mentoring environment responsibility is delegated downward, with the executive leaders providing the commitment, support, and resources to enable employee implementation of revisions for a quality product. Therefore, an individual's ability to empower workers is contingent upon personal skills and the organization's leadership role structure (9:19).

Another vital component in employee growth and production is the organization's model for cultivating improvements and innovations. An organization can reward and recognize achievements made by individuals, groups, or a combination of both. A single person can make some notable

contributions to an organization depending upon their expertise, analytical ability, and employment of statistical measures. An advantage to this technique is that it is less time consuming, thus more suited to crisis response. However, the most significant improvements in an organization are made by a team approach to problem solving. A team brings together all the participants of a process that is experiencing a variation. The exact points of dysfunction can be identified by pooling all the abilities, talents, and knowledge of the group. This concept allows the members to concentrate on the opportunities for improvement and the customer, rather than parochial concerns. Furthermore, it builds a collegial relationship between the participants, reinforces collateral communication, and fosters the capacity to break down barriers of separate departmental "stovepipes". The greatest advancements in quality are fulfilled in an organization that produces the best mix of both individual and team accomplishments (22:2-7).

QUALITY ASSURANCE PROGRAM

QA was characterized by the concentration of power at the top and an emphasis on personal concerns. Employees retained authority to work a problem that was contained in their department or span of control. However, when a deficiency was identified that was outside of their department or span of control, the complaint was transmitted up the chain of command for action. This communication network resulted in a very rigged and biased evaluation. Not only did the response reflect the political interest of the individual assessing the situation, but it was also cloaked in a defensive reply. Frequently, this shielding reaction to an inquiry yielded a justification of nonaccountability in lieu of an appraisal. Needless to say, personal agendas

greatly overshadowed any hope of obtaining an effective solution. Furthermore, improvements that did occur in the QA program were largely due to individual achievements. Enhancements and modifications in QA came mainly from the middle management level, with scant participation and use of front-line employee input or potential. The main deterrent to realizing the maximum capability of the entire work force was lack of a team concept to problem solving.

To demonstrate how leadership and personnel utilization were carried out in the restrictive environment of QA lets go back to the meeting being conducted by Lt Col Mode:

The last time we left Lt Col Mode, she was trying to capitalize on an opportunity to improve the inpatient drug delivery process. To quiet the maddening crowd of discontent OICs, she tells them that she will forward their complaints to the Chief of Pharmacy. This is the normal way of handling deviations, directing the problem to the office of primary responsibility to evaluate and implement corrective measures. However, the nursing department executive will be informed, and the chain-of-command will be followed before any actions are taken. Lt Col Mode is pessimistic about a positive outcome. Such inquiries usually result in a response that points out all the nursing inadequacies that caused the pharmacy to be inefficient. It is doubtful that the root of the problem will be discerned and an effective solution will be initiated.

QUALITY AIR FORCE

The enormous impact of QAF can be appreciated by examining the findings of a study conducted by Sheila Sheinberg that surveyed 480 people at a large institution. When asked - How much of you, the total person, including your intelligence and initiative, does this organization access and use? She received the following responses: executive, 50 percent; supervisors, 40 percent; managers, 28 percent; and employees, 10 percent (23:27). QAF facilitates the release of this untapped potential by establishing a culture that fosters participation from all. This full involvement is cultivated by the organization's different leadership roles, team concept and dedication to empowerment. In QAF there are certain functional behaviors that are ascribed to senior leaders, mid-level managers and front-line workers.

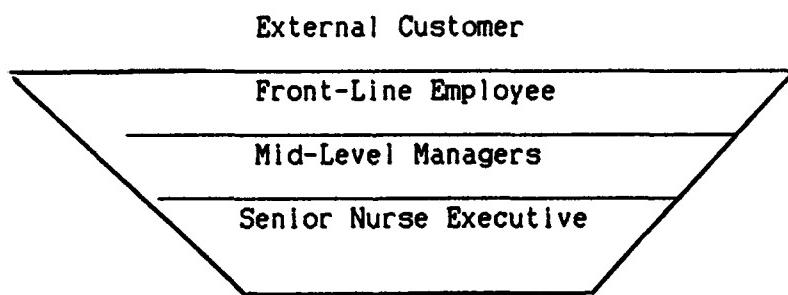
Senior leaders are risktakers, high energy visionaries and consensus builders. They are responsible for assimilating information from multiple sources and formulating a vision for the agency and a systematic plan to reach that outcome. Leaders play an active role in the implementation process, they walk the talk and epitomize integrity (3:99-142; 7:51). Integrity is the congruence between actions and words, the key to which is a deeper understanding of the inner-soul. Successful leaders believe their primary task is continually promoting the vision and use all available forms of communication to accomplish this endeavor (3:142; 7:52). Quality leaders consider people their most important asset. They involve employees at all levels in setting direction, making decisions, and solving problems. Leaders see learning as a continuum. They are students for life. Highly versed in teamwork, leaders rely on groups to do many things. Teams are used to facilitate communication across functions and departments, set direction and

goals, make decisions, solve problems and act as direct channels to and from the customer (7:53). Tenacity and persistence are valued attributes of a leader. They realize change is a long-term process that requires mobilization of a multitude of people over the course of time (7:53).

Mid-level managers assume a completely different role under QAF. They convert from the role of "overseer" to that of mentor and team leader. The true significance of the mid-level manager's contribution is not fully actualized until later during the long-term strategic plan. During the short-term operational plan or in the initial implementation of QAF, the mid-level manager must be knowledgeable about quality management, support the philosophy, and allocate manpower resources to help accomplish the primary goals. Cross-functional projects or process action teams (PATs) dominate this phase. These teams are groups of people from one or more areas that are brought together for a specific time to resolve a specific problem or issue related to a process. Involvement of the employee in developing solutions is the prevailing feature of this period. The emergence of permanent task forces (PTF) and self-directed work teams (SDWT) does not take place until later under the long-term strategic plan. During this period, individuals have become accustomed to the team concept and this method is becoming institutionalized. Both the PTF and SDWT are quality circles that provide the framework to initiate the principles of shared governance at the central and unit levels. A PTF is a permanent group of people who handle an entire process or system that is concerned with generic issues at the organizational level, such as the services provided to the customer - medical, surgical, and maternal child health. A SDWT is a permanent group of people who handle an entire process for creating a product or service at the unit level(9:98-109). In this environment, the mid-level manager converts from the role of

supervisor to that of team leader requiring the unique skills of a coach and guide (15:7). Many TQM specialists point out that a critical junction in the implementation plan occurs during this segment. The nature of this turbulence is directly correlated to the need for mid-level managers to demonstrate the above listed mannerisms. It is imperative that mid-level managers receive training on empowerment so that they can smoothly transition to their new function as team leaders (5:7; 10:52; 13:203-204; 15:7; 20:5; 29:210;).

In a quality culture, the front-line workers are the experts. They know better than anyone what is required to improve the process and satisfy the customer. They play a vital role as members on a variety of teams, helping to execute the strategic plan, assisting with training, and developing matrices (25:II-9). The "upside-down" organization chart stresses the importance of the front-line employee's contribution to the organization and provides a new way of looking at and perceiving the internal customer. This depiction puts those closest to the action on the top and the others below (14:6).



Teams are an integral part of QAF. Some of the advantages of using teams are: increased levels of trust, stronger commitment and superior quality-based decisions (25:V-7). There are six types of teams: tiger teams, cross-functional project teams or process action teams (PATs), developmental teams, natural work teams, permanent task forces (PTFs), and self-directed

work teams (SDWTs). Tiger teams are initiated to deal with urgent symptoms of a specific problem. Developmental teams are formed to design new processes or projects. Natural work teams are devised to work together as part of their regular job and handle part of a process for creating a product or service (25:V-7). Process action teams, PTFs and SDWTs have already been defined.

The leadership art of energizing the potential of individuals is called empowerment. A transfer and receive phenomena occurs with empowerment, in order to get power you have to give it away. A leader can unlock the tremendous power of employee capabilities by practicing ten easy steps. The leader's first step toward empowerment is to clearly assign and communicate job responsibilities to each person. The next step is to ensure that the authority delegated to each individual is equal to the assigned responsibility. To proceed to the third step, the leader must set standards of excellence. In order to facilitate the achievement of these expectations, the leader needs to provide the training that will enable the person to meet the established goals of performance. The fifth step is to give individuals the appropriate knowledge and information to allow the formulation of informed decisions. The employee can then determine their progress toward obtaining the objectives and standards by means of performance feedback. Through feedback the leader is able to reinforce positive accomplishments, build pride and self-confidence, and motivate people to do even better. The seventh step involves the enhancement of self-esteem and creating incentives to do superior work by means of recognition. The acknowledgement of success should be directed toward individual victories, group achievements and tailored to the uniqueness of the person. The last three steps toward empowerment

delineate that the leader must demonstrate trust, give permission to fail, and treat individuals with dignity and respect (26:1-163).

The "Ten" steps or principles for empowerment are:

1. Clearly assign and communicate job responsibilities.
2. Ensure the delegated authority is equal to the assigned responsibilities.
3. Set standards of excellence.
4. Provide appropriate training.
5. Give the needed knowledge and information.
6. Provide feedback on performance.
7. Recognize achievements.
8. Create an environment of trust.
9. Give permission to fail.
10. Treat individuals with dignity and respect.

Therefore, QAF promotes increased productivity and participation from all members through the medium of its leadership roles, team concept, and emphasis on empowerment.

To demonstrate how leadership and personnel utilization were carried out in the stimulating environment of QAF lets go back to the meeting being conducted by Lt Col Zapp:

The last time we left Lt Col Zapp, she was trying to capitalize on an opportunity to improve the inpatient drug delivery process. All of the inpatient OICs recognize a PAT consisting of all the major stakeholders, including the pharmacy, is needed to fully analyze the process and implement corrective actions. The OIC of the Medical Nursing Unit volunteers to be the team leader. Lt Col Zapp states that she will clear the PAT with the Quality Council, obtain a facilitator, and coordinate participation requirements.

Lt Col Zapp thinks about how exciting it would be to lead this PAT. However, she remembers that her leadership role is that of mentor - securing the resources and providing support for the project team's activities. Knowledge is not power, but responsibility. Learning is a means to an end. We learn in order to teach others, and our greatest leadership role is that of mentor.

So far we have discussed how the culture of an organization impacts on the nature of the interaction and communication within the agency. That leadership responsibilities or roles, team concept, and empowerment, fosters participation from the entire work force and enhances individual and group growth. The third bone of the Ishikawa cause-and-effect diagram to be appraised is the Structure.

CHAPTER V STRUCTURE (STRATEGIC PLANNING AND IMPLEMENTATION)

Survivability in today's business world is dependent upon an organization's capacity to make a product that meets current and future requirements. In order to obtain this end, every activity in the institution must be devoted to continuous quality improvement, and the structure must clearly stipulate the direction for further advancement and change. Previous management techniques did not have this global perspective, instead they concentrated on departmental contributions rather than constructing an overall vision for the agency. High efficiency and progress demand that all resources in a company be focused on the same goal and that the strategic plan be based on this holistic outlook. This foundation permits the development of training requirements, designation of reward programs, identification of vital processes for refinement, implementation of work groups, and delivery of a quality product that is always undergoing enhancement. It creates the perfect environment where the plan is continuously revised to ensure the best match between resources and the objective. Now, the parallels between the QA and the QAF structures will be delineated.

QUALITY ASSURANCE PROGRAM

The strategic plan for the QA program was of short duration and extremely narrow in scope. Each medical department put together an annual QA report that summarized their progress during the present year and projected goals for improvement during the next year. Modification efforts were centered on operations within the different departments, and the targeted customer was considered the staff that worked in these areas. The annual training was

directed toward teaching the principles of quality assurance which were based on problem resolution rather than continuous quality improvement. This atmosphere fostered a segmental approach to facilitating change. Obviously, efforts to alter the agency were highly fragmented with minimal cross-functional communication and cooperation (2:28).

To show how structure is applied in the QA medium, lets transport ourselves back to the meeting that is currently under way:

Lt Col Mode reached a juncture in the forum where she forwarded the problems related to the inpatient drug delivery system to the Chief of Pharmacy for evaluation and resolution. She is pessimistic that a positive outcome will result from this assessment. The agency's manner of operation does not promote a team approach to quality improvement. Variations are worked within the separate departmental "stovepipes" and if a modification enhances a product, then this improvement is listed as a sectional rather than an organizational achievement.

QUALITY AIR FORCE

The QAF structure encompasses the full implementation of total quality management into the organization. The incorporation of this quality philosophy occurs in two phases. During the beginning phase the agency's key executives formulate a vision which delineates the future direction of the company. The next step involves a complete assessment that identifies the multitude of customers served and the vital processes that need to be

strengthened. Also included in this transformational curriculum is the designation of educational requirements and construction of a staff development plan which will provide basic and upgrade training. Once the staff are proficient in QAF methods, then the PATs are instituted to enhance the processes and thereby advance the quality of the product delivered to the customer. After the processes are stabilized, then important outcome measures are monitored by means of matrices so that further areas for improvement can be discerned. Finally, gains that are depicted in the matrices or outcome measures are compared against national standards and other noteworthy organizations. This initial drive to infuse the organization with QAF is called the short-term operational plan and spans the first two years of the implementation process (1:10-11; 9:206-251; 28:241). The second part of the organization's QAF structure is the long-term strategic plan which extends into the third through the tenth year. QAF becomes a way of life during this phase. Self-directed work teams and permanent task forces are a prominent feature of this segment, leading to the complete institutionalization of the QAF ideals. It is evident that the QAF structure is very inclusive and progressive, providing the best strategy that connects resources to the objective or the vision (9:206-251).

To show how structure is applied in the QAF medium, lets transport ourselves back to the meeting that is currently under way:

Lt Col Zapp reached a juncture in the forum where she was helping the committee members outline the necessary resources required to charter a PAT. This group will address the variations that occurred in the inpatient drug delivery system. The QAF structure encourages cross-functional communication and cooperation. During the assessment phase of the short-term operational plan, the

pharmacy and the nursing departments identified the inpatient drug delivery system as a vital process that they both needed to improve by working together as members of a PAT. The current situation presents a golden opportunity to complete a project previously specified for refinement.

We have reached the last bone of the Ishikawa cause-and-effect diagram. This portion of the instructional design will examine the various methods utilized in QA and QAF.

CHAPTER VI
METHOD (FOCUS ON CUSTOMER, PROCESS AND STATISTICAL ANALYSIS)

An organization's ability to identify opportunities for improvement is contingent on the method used to evaluate situations. There are two important components of a method, the analytical model and the tools that are employed.

The model frames the area of study. It provides a conceptual schematic that focuses the inquiry. The tools determine how the data are assessed. Tools facilitate the assimilation process by furnishing procedures for gathering, studying, and displaying information. In the following dissertation the dissimilarities between the QA and QAF methods will be reviewed (9:69).

QUALITY ASSURANCE PROGRAM

The QA model was centered on the operations that were performed by specific departments. QA Coordinators from the separate departments identified clinical procedures that were critical to the delivery of quality patient care in their area. Then indicators were developed that monitored the vital execution steps for each procedure. The QA unit representatives then set a schedule to go out and evaluate whether these steps were completed in accordance with established standards. If a problem was discerned, the emphasis was on an immediate resolution of the divergence. This preventative model had many pitfalls which deterred the organization's ability to identify opportunities for improvement. The framework accentuated compartmentalization and band-aid fixes that did not truly address the causes or roots of the variations. Some steps in a process were corrected or advanced. However, the process was not fully assessed. Therefore, the alterations to the process

were segmental rather than complete. Revisions were only made to the clinical aspects of production, the administrative and professional domains were not examined. Lastly, evaluation of a situation was conducted by an individual rather than a group of employees who were essential stakeholders in the process. As pointed out above, the tool of analysis was the indicator that stipulated what action met the designated standard. Statistical techniques for gathering, studying and displaying data were not utilized. Thus, the conclusions were very subjective and limited (2:26-29; 6:58-61).

The final outcome of the actions implemented by Lt Col Mode will demonstrate the effectiveness of the method used in the QA environment. Lt Col Mode adjourned the prior QA meeting and obtains the results of the initiated measures:

The evaluation report completed by the Chief of Pharmacy is received. She reviews the findings that are outlined in this report, and her expectations are confirmed. A comprehensive appraisal of the situation was not accomplished. The report states that the unit nursing staff is not forwarding the drug request orders expeditiously to the pharmacy and that this is causing a delay in the delivery of medications to the inpatient units. Furthermore, the unit nursing staff needs to call the pharmacy and confirm the drug request orders because the carbon copy that is sent to the pharmacy is hard to read. This is an unrealistic solution. Drug request orders are written at frequent intervals on a multitude of patients. The nurse would be continuously confirming drug request orders, taking vital manhours away from direct patient care delivery. Additionally, this is a dangerous practice to call medication

orders over the telephone, considering there are numerous sound alike and look alike drugs. The outlined corrective measures place the burden of improvement on the nursing staff rather than refining the process that generates the product.

QUALITY AIR FORCE

The QAF assessment method emphasizes three factors, a focus on the customer, the process, and scientific measurement. There are internal and external customers in an organization. The internal customers are people within a company who depend on fellow employees and managers. The external customers are the end users of a product. Internal and external customers must be identified in order to formulate the organization's strategic plan. This is also the first step when analyzing a problem that presents an opportunity for improvement. The main thrust of QAF is to meet the customer's needs. Consequently, the employees are taught to use customer satisfaction as their theoretical point of reference in all transactions. The customer's feedback on the quality of the provided service is actively sought through surveys, focus groups, comment forms, and personal visits (9:28-43).

QAF takes a systems approach to improvement and at the heart of this endeavor is the individual work processes that are performed in creation of a product. Certain elements and points of a process must be changed in order to increase accuracy, consistency, timely delivery, appropriate cost, safety, personnel well-being, and positive customer perception. Altering the input may mean finding better raw materials or more suitable information flow at the beginning of the process. Revisions related to people may encompass a new ordering of work load structure or technical composition of the work force.

Advancements related to machines and hardware may actualize gains associated with efficiency. Adjustments of procedures may involve the deletion of unnecessary actions or the addition of enhancement steps. The supplies or tools may be varied. The physical environment may be refined. Modification of administrative functions may strengthen support services, resulting in a more equal distribution of job responsibilities. Therefore, a complete appraisal is based on the examination of all the key players and parts of a process from the time of its commencement, through the transformation stage to the moment of output (9:46-66).

Problem analysis in the QAF culture is accomplished with quantitative and qualitative tools which allow the identification and examination of variations in a process. These procedures facilitate the objective ordering of information that permits the designation of improvement areas in a deductive rather than a subjective manner. There are a multitude of quality tools spanning the gamut from simple flow charts to more sophisticated statistical techniques. Once a process is improved then the achievements can be continuously evaluated by monitoring matrices. Matrices are the visual depiction of outcome measurements pertaining to cost, time, quality, quantity and flexibility. When matrices are compared to national standards or notable organizations this is called benchmarking. In summation, QAF stresses improvement of processes by stabilizing variations that are identified by scientific measures leading to customer satisfaction (9:68-90).

The final outcome of the actions implemented by Lt Col Zapp will demonstrate the effectiveness of the method used in the QAF environment. Lt

Col Zapp adjourned the prior QAF meeting and obtains the results of the initiated measures:

The evaluation report completed by the PAT is received.

She reviews the findings in this report and is excited about the conclusions that were derived from a full appraisal. "The first breakthrough came when the PAT team members discovered that the main customer of the process was not the patient, but rather the nurse on the unit. Using statistical analysis and flowcharts, the drug request form was identified or found to be the root of the discrepancies (24:5)." The drug request form had two carbon copies, the last carbon copy of this form was removed and sent to the pharmacy.

Miss-alignment, heat sensitivity and highlighting with yellow markers made the orders annotated on this carbon copy illegible. The plan stipulates that FAX machines be placed on the inpatient units so that the original sheet of the drug request form can be faxed to the pharmacy. Furthermore, this improvement will eliminate 30 percent of the none value added steps in the process. Streamlining and automating the process will return critical manhours back to direct patient care delivery and services (24:5).

CHAPTER VII CONCLUSION

QAF is a fundamentally different management style that vastly diverges from the way we traditionally operated in the Air Force. The above comparison of the new QAF endeavor and the old QA program, thoroughly delineates the primary distinctions between the two approaches. QAF incorporates all the elements of an entire process or framework. QA is disjointed and concentrates on a few dimensions which are incorrectly focused, applied, and implemented. Our journey has come to an end, we have completed the designated route of instructional exploration. This conceptual adventure through the four bones of the Ishikawa cause-and-effect diagram has validated that QAF is a dynamic transformation founded on a total change in culture, personnel utilization, structure and method.

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